

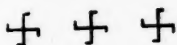
RECORDS ^{OF} THE PAST

VOL. VI



PART I

JANUARY, 1907



CLIMATE AND HISTORY IN WESTERN ASIA

FROM the standpoint of climate western Asia and Europe are very different. Almost the whole of western Asia is semi-arid or desert, while Europe nearly everywhere has rainfall enough to make irrigation needless. In the semi-arid portions considerable snow or rain falls in winter. In spring the ground is carpeted with living green, but vegetation rapidly dies in the heat of summer. Irrigation is necessary for all but the earliest crops. Without it men must depend upon pasturage for flocks. But those in possession of a well-watered plain in a few decades can accumulate stores of food beyond the wildest dreams of the shepherd.

The nomad shepherd is a law to himself except as regards the most elemental relations, but even the crudest attempt at irrigation requires coöperation. Here, then, was a compelling inducement to coöperate that could have acted powerfully upon primitive communities in western Asia. May not this explain their rapid advance in civilization? The cultures of Babylonia and Egypt were 3000 or 4000 years old when the civilization of Europe began to take shape.

In primitive communities coöperation on a large scale is possible only when the many blindly obey the few. With them absolutism is the price they must pay for the fruits of a complex social organization. The riches that rewarded each new coöperative effort in the valleys of the Tigris and Nile made the inhabitants willing to pay the price. Was it not this process that so early transformed the patriarchal chief-

tain into the irresponsible despot, and checked the development of personal rights? At any rate, it is in the slowly developing culture of Europe that the idea of personal right and consequent political liberty has come to fruition.

In the nearer Orient the areas suitable for cultivation are many, but they are separated by tracts adapted only to nomad life. As a result, each irrigated district developed apart from its neighbors, and in most respects was sufficient unto itself. Its inhabitants spoke their own dialect, worshiped their own gods, and feared strangers, who were usually half barbarous nomads. In this way religion and custom became intertwined and connected in the thoughts of men with the very soil of their native land.

These lines of cleavage were broadened by another factor. Since absolutism had won the day, the gods, like the kings, were thought of as despots whose fiat created laws. Thus emerged the idea of absolute, even capricious will, an idea tersely expressed in the Muslim's contention that whatever Muhammad did was right because he, the Prophet, did it. Theoretically any deed may be right or wrong, according to the fiat of the divine will. The Pharisees worked out this theory and applied it to all the acts of daily life, which thereby took on, we can not say a moral, but a religious tinge. Islam has done the same. There is a right way to perform even the simplest action, and a wrong way. Unfortunately the laws of the different creeds do not agree. One Muslim sectary begins near the elbow when he washes his hands, another begins at the fingers. The firmer the faith of the community the greater the separation such disagreement produced. Nor is there a way of escape unless the fundamental conceptions just outlined regarding what constitutes the religious life be changed.

The history of the great Oriental empires is in the main the history of the city men, who inhabit the irrigated districts. Divided for many centuries into scores of principalities, only under the later Assyrians do we find these districts from the Caspian to the Nile united into a fairly compact empire. The pitiless massacre of local patriots or their enforced exile, and the ruthless destruction of local shrines, destroyed these little kingdoms forever, but the mingling of the nations thus accomplished seems to have made the survivors the more loath to accept strange gods. Religion, custom and nationality still were blended in thought, and the lines of cleavage that formerly divided districts now separated the parts of each composite community. To make this condition permanent it remained for the overlord to base his government upon it. So far as we can now see, this was first done by the Iranians under Cyrus and Darius. To them belongs the glory of first creating a true world empire, in which the peculiar institutions of each nationality were respected under the shah who thus fulfilled his grandiloquent title, "King of kings, King of countries, King of all the various tongues." He held together all the city men of west-



TENTS OF THE NOMAD KIRGHIZ TARTARS OF TURKESTAN

ern Asia from the Jaxartes and Indus to the Nile and *Ægean*. The vision of a world empire never since has been wholly absent from the minds of kings. It was the Greeks who introduced it to the west. Under them some centers of European civilization were added to the Asiatic empire. For a brief period the city men from Athens to Samarkand and Kabul acknowledged one overlord, and even after their political separation the bonds of trade and common interest still held them together. It was for the first and last time in history. We see in it the end of a long historic development which had begun many centuries before and on the whole had moved steadily forward to this great culmination.

So far the student may trace the story of the nearer Orient with something like enthusiasm. For the next 8 centuries he may still find signs of progress along social and commercial lines. Then the horizon darkens, and for nearly a thousand years, with failing faith in the optimism that calls all history a record of "progress," he traces step by step a steady disintegration of the higher forms of civilization until almost all the glories of the past disappear in the barbarism of the XV century. What is the cause of this strange *denouement*?

This question is answered in part by noting another result due to the climate. In a semi-arid region the snows or rains of winter assure a fine crop of grasses over upland and valley. In the summer and fall this vegetation, now seeded and dry, still affords excellent pasturage, while running water can usually be found within 10 or 15 miles at the most. These are the conditions which have produced the nomad life. A tribe of nomads may plant a little grain and may live in dugouts during the winter, but their chief dependence for sustenance is upon flocks. During the summer and fall this compels them to adopt a wandering mode of life (usually within fixed limits), because their large flocks will exhaust the supply of fodder accessible from any given point. Thus the very conditions that produced the crowded

populations in the irrigated plains, surrounded these plains with nomadic shepherd tribes. The settled population could never absorb them, for it could not change the character of the dry mountain slopes that determine their mode of life. Nomad and city man thus from the first have dwelt side by side; the Arab in his felt tent encamped in the environs of Nippur as his descendant now pitches outside of Bagdad.

The nomad is a warrior by nature. His active life in the open air inures him to hardship, and its ample leisure and wild freedom compels him to mastery in the use of weapons. Thus equipped, he has always coveted the wealth of the cities. The city man is too busy to learn well the arts of war. It is easier to fortify the towns and to hire good



THE HORSE MARKET AT SAMARKAND

warriors. But when for any reason the treasuries were empty, when the central power was weak and each district compelled to shift for itself, then always followed the sacking of villages and the investment of cities by the hungry shepherd hordes. The irrigation canals, constructed with great labor, became a prey to the winter freshet; the dams, sometimes made at great expense of trimmed stone, in a few years were useless, and so in countless valleys scenes of verdure changed to barren wastes, except the strips of green that marked the courses of the streams that had served the former cultivators so well. Persia and Turkey at present are full of such ruined or partially ruined districts.

Nor is that all. The needs of the nomad are confined to absolute necessities and such scant comforts as he can carry with him. He lives in camps all the days of his life. This simplicity is imposed upon him

by his surroundings; it is an unchanging factor, as true now as it was 5 milleniums ago. The complexities of any advanced civilization are almost incomprehensible to him. His very presence alongside the city men has been a clog upon development, and does much to explain the fixedness of conditions in the Orient. But the nomads have not simply lived alongside the city men. Time and again have they overrun the city districts and infused themselves among the settled population. At each such time progress was stopped until the new elements were brought up to the cultural standard already attained.

Yet in spite of these facts the nomads in western Asia, outside of Arabia, have never checked for long the growth of civilization. The



STREET IN THE SART SECTION OF SAMARKAND JUST AS THE CALL TO PRAYER HAS BEEN GIVEN AT NOON

great catastrophes have always been caused by invasions from without. As population increased slowly among the nomads, the pressure of numbers was not felt in Arabia or Siberia until a comparatively late date. It was the climatic conditions that made the invasions so formidable when they did occur. The isolated city districts did not present a united front. The semi-arid expanses enabled the invaders to continue their old mode of life, instead of blending with the settled population. Swarms of native nomads were ready to aid them in their work of destruction. A few thousand foreigners added to the lawless elements already present have sometimes sufficed to turn the scale against the higher social order. This is shown by the rise of the Seljuk Turks.

One of these great catastrophes occurred a little before the Christian era, when the Greco-Bactrian power was overwhelmed and all the

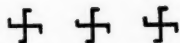
city districts from the Sea of Aral to the Indus opened to receive new populations. Six centuries later came the Arab conquests. In their case the records are full enough to show that the injury done by the first inroads was not half so serious as that caused by the long years of disorder that followed, due largely to the restlessness of the newcomers. From the X century on a gradual but constant infiltration of Turkish and Mongol tribes prepared the way for the terrible scenes of the great invasion of the XIII century. These tribes kept their identity because the waste regions rendered it possible for them to live in isolation, and the baneful influence they exerted in spite of their numerical inferiority to the settled inhabitants is due largely to the native Afghan and Kurdish tribes that aided them.

A comparison with conditions which have prevailed in Europe will emphasize these facts. About 4 centuries before Christ came the great Celtic migrations. These barbarians wiped out the Etruscan power in the valley of the Po and pressed on into Etruria. Their conquest transferred the supremacy of the city states in central Italy from the Etruscans to the Romans. It had no other result of great importance, for the reason that the climate encouraged only one mode of life, that of the settled agricultural community. In a few generations the invaders had all yielded to this influence. Under these favoring conditions the Romans created what might be called an Italian nation, whose common ties not even a Hannibal could undo. What they accomplished in Italy they later repeated in Spain and Gaul, where homogeneous populations grew up. Each new horde of barbarians who have entered these lands—Visigoths, Franks, Burgundians, Lombards, Norsemen and Moors—have all in time been absorbed into the older population.

Rome's great rival, Carthage, was situated on the coast of a semi-arid land. Behind her lay the barren mountains of Numidia, whose inhabitants she could never assimilate, because the conditions of climate imposed upon them a different mode of life from hers. They served her as mercenaries when she was prosperous, and became the allies of Syracuse or Rome in her hours of defeat. Under Roman rule they remained quiescent, and cities grew apace, yet their real character remained the same, and after 5 centuries the cultivated districts fell an easy prey through their aid to Vandal and Arab. A thousand years have since passed, yet the French, who are now reclaiming this land, find it less advanced than the Romans left it.

Rye, N. Y.

E. CUTLER SHEDD.



CUNEIFORM TABLET FOUND AT BOGHHAZ KEUI.—

Prof. Sayce announced to the Society of Biblical Archæology at a recent meeting a great discovery of a cuneiform tablet at Boghaz Keui, which he hopes will help in dissipating the mysteries attaching to the Hittite language.

THE DEVELOPMENT OF THE SYSTEM OF BOUNDARY FORTIFICATIONS IN BRITAIN AND GERMANY, UNDER THE ROMAN EMPIRE¹

PART I

BOUNDARY OF THE ROMAN EMPIRE IN GERMANY

THE erection of permanent fortresses, other than the walls of cities, and the employment of soldiers in uninterrupted garrison service, found no place in the military experience of the Romans during the greater part of the republican period. Provision was usually made for the protection of outlying districts by establishing Roman or Latin colonies at important strategic points. The citizens of these towns were bound to hold themselves in readiness to defend their walls upon the approach of an enemy. They were not, under ordinary circumstances, withdrawn from the usual occupations of civil life.

When it became necessary to secure the possession of extensive provinces lying outside of Italy permanent garrisons had to be stationed along the frontiers and suitable works had to be erected for their shelter and defense. Later, the necessity of providing adequate protection against the incursions of barbarians into provincial territory led to the construction of continuous lines of fortification along the land boundaries of the Roman Empire. Recent excavations and discoveries have made it possible to trace, with a fair degree of accuracy, this system of defensive works, which forms a characteristic and not uninteresting chapter in Roman military history. But the discussion in the present paper will be limited to the boundary defenses reconstructed by the known remains in Britain and Germany, the countries where most progress has been made in examining the camps and fortified barriers.²

¹Presented with stereopticon illustrations at the Classical Conference at Ann Arbor, Mich., March 29, 1906.

²While it does not fall within the scope of the present paper to give an exhaustive bibliography of the extensive literature which deals with the Roman *lines* in Germany and the corresponding fortified line in Britain, the attention of those who desire to make a thorough investigation of the subject may be directed to a few of the more important works.

The most convenient book which presents anything like an exhaustive treatment of the remains along the frontier in Northern England is the work of Bruce, *The Handbook to the Roman Wall* (4th edition, London, 1895). The observations and conclusions of Bruce should be compared with and, to some extent, corrected by those of Krüger, which appeared in an article in the *Jahrbücher des vereins von Altertumsfreunden in Rheinlande* (Bonner Jahrb., Heft 110, 1905) entitled *Die Limesanlagen in nördlichem England*. The results of the work of excavation which has been carried on in Germany since 1891 at the expense of the imperial government have been published under the title *Der obergermanisch-römische Limes*, by O. von Sarwey and Dr. E. Fabricius (Heidelberg). Summary discussions of the results of these important excavations and investigations will

Cæsar crossed the Rhine on two occasions by means of wooden bridges, which had been hastily erected,³ in 55 and 53 B. C. The first bridge was removed directly after the return of the expedition for which it had been constructed; the second, however, which was erected a little above the first, was not entirely destroyed, although the portion which adjoined the German bank was pulled down. The remainder was allowed to stand in readiness for future operations. The approach to both bridges had been fortified. The fortified camp which protected Cæsar's second bridge received a permanent garrison of 12 cohorts. Its location, opposite Urmitz, a little above Andernach, has probably been determined, and its ground plan ascertained. The identification of the remains there discovered seems certain.⁴ It extended for a distance of 4-5 of a mile (1275 meters) along the left bank of the river. The fortifications on the land side had the form of an irregular semicircle and were 1½ miles (2.5 kilometers) in length. These defenses consisted of an earth rampart strengthened on the outside by two ditches. In the bed of the Rhine, the course of which is almost east and west at this point, were found piles which at one time must have formed part of a bridge. Their position in line with the axis (*decumanus*) of the camp, which in this instance would be a line extending from the south gate in a direction at right angles to the course of the river, points to their identification as remains of the second bridge of Cæsar. The works at this point were the first Roman fortification on the Rhine. Cæsar made the river the boundary of Roman dominion from Lake Constance to the sea.

This boundary was provided with a comprehensive system of defenses by Drusus, the step-son of Augustus, probably in 12 B. C. According to Florus (II, 30) he erected 50 forts (*castella*) at intervals along the Roman or Gallic bank of the Rhine. These were intended, no doubt, to serve as protection for detachments of auxiliary troops, the cohorts and *alæ* which were organized and recruited from among the subject peoples of the Empire. Mainz (Mogontiacum) and Castra Vetera (near Xanten) had already been selected as headquarters for the legions, the divisions formed of Roman citizens.

Thus, near the beginning of the first decade B. C., we find an arrangement which was characteristic of the distribution of the forces during the whole period of the occupation of the military boundary,—

be found in the following articles and monographs: Herzog, *Kritische Bemerkungen zur Chronologie des Limes* (Jahrb. d. Ver. v. Altertumsfr. im Rheinlande). Heft 105 (1900), page 50-75; Ernst Schulze, *Die römischen Grenzanlagen in Deutschland u. das Limeskastel Saalburg*, (Gütersloh, 1903); E. Fabricius, *Die Entstehung der römischen Limesanlagen in Deutschland* (Trier, 1902); Koepp, *Die Römer in Deutschland* (Monographien zur Weltgeschichte, Leipzig, 1905). With regard to the Saalburg the reader may consult the description by von Cohausen and L. Jacobi, *Das Römerkastell Saalburg* (Homburg, 1902), or a short guide by H. Jacobi, *Führer durch das Römerkastell Saalburg* (Homburg, 1905).

³Cæsar, *Bell. Gall.* IV, 16-19 and VI, 9-10 and 29.

⁴Nissen and Koenen, *Caesars Rheinfest*, Jahrb. des Vereins von Altertumsfreunde im Rheinlande (Bonner Jahrb., Heft 107 (1899), pages 1-29).

the combination of large fortified camps for the legions with a series of smaller forts for the *alæ* and cohorts. The forts erected under the orders of Drusus consisted of small rectangular areas enclosed by ramparts of earth. The traces of one of them were discovered near the site of Cæsar's second bridge, partly enclosed by the larger fortifications thrown up by him as described above.

We shall pass over the period of Roman dominion between the Rhine and the Elbe; it was apparently too ephemeral to permit of the development of a regular system of forts. After the recall of Germanicus in 16 A. D. the Rhine marked again the veritable or approximate limit of Roman authority throughout the greater part of its course, although the territory about Weisbaden, defended, perhaps, by a fort which Drusus had erected on Mount Taunus,⁵ was retained as a part of Upper Germany and farther down on the right bank of the Rhine an unoccupied military zone added to the security of Lower Germany.

The decisive step which led to the establishment of a permanent land boundary east of the Rhine was taken by Domitian as a result of the war against the Chatti in 83 A. D. The ability of Domitian has been misjudged because of the ridicule heaped upon his military enterprises by contemporary but prejudiced writers.⁶

But recent excavations in the lower Main valley have shown that his campaign in that quarter had results of lasting importance for the extension of Roman sovereignty. Five legions with their complement of auxiliary troops, cohorts and *alæ*, starting from Mainz (*Mogontiacum*) as base, drove the Chatti from the lower Main valley and then dislodged them from their fastnesses on the summit of Taunus.

Several forts were at once constructed in the plain to be garrisoned by bodies of the auxiliary troops. The description of the forts has been reserved for a latter part of this paper; but we may remark here in anticipation that the fortified camps intended for the cohorts and *alæ* as well as the larger ones of the legions and the small stations for detachments, of which we shall have occasion to speak presently, were nearly always rectangular in plan. It is convenient to designate as "cohort *castella*" or cohort forts, the fortified camps whose size was calculated for single cohorts or *alæ*, bodies of 500 or 1000 men. These must be distinguished from the large legionary camps on the one hand and on the other from the small forts for single detachments.

Remains of buildings have been found in the cohort *castella* in the plain between the lower Main and Mount Taunus showing brick-stamps with the names of the legions which were assembled in this region only at the time of Domitian's campaign against the Chatti. This proves that measures were taken by this emperor which secured the permanent occupation of the territory by the Romans.⁷

⁵Tac. *Ann.* I, 56.

⁶Tacitus, *Germ.* 37, *Agricola* 39, 2; Plin. *pan.* 16; Dio Cassius LXVII, 4, 1.

⁷Cf. Fabricius, *op. cit.* p. 5.

When the auxiliary troops had been provided with fortified camps the Romans proceeded to lay out the fortified boundary or *limes*. The word *limes* related etymologically with *limus*, meaning "cross-wise" or transverse, and *limen*, "threshold," signified originally a neutral zone separating the lands of different rural proprietors;⁸ it is described as a boundary having width, and served regularly as a highway. So the *limes Imperii Romani* was a road which marked the limit of Roman territory. The word, even when used in the latter connection, did not imply, at first at least, the existence of defensive works. Later, when circumstances led to the erection of forts along the boundary with uninterrupted defensive barriers to exclude the barbarians, the word may have come to suggest to the Roman mind, as it does to ours, a system of military works.

Frontinus⁹ speaks of a recent extension of a *limes* 120 miles in length. This would correspond with the boundary traced by Domitian from the Rhine near Neuwied to the Main at Hanau, embracing the territory which he had acquired. This line, represented by a cutting through the forest, followed in general the summit of the Taunus range in an irregular course to conform to pre-existing canton boundaries and the requirements of signal service. For at points of vantage wooden towers were erected in which soldiers were posted to watch the movements of the barbarians and signal to the cohort castella in the plain the warning of danger. The signals were thus transmitted by means of fire.

At convenient intervals along the *limes* small forts or earthworks were provided for the detachments detailed from the castella for sentinel duty on the boundary. One of these, which may be selected as a typical example, was discovered on the site of the Saalburg. It had an area of 100 yds. by 107 yds. (92 by 98 meters). At first the chief purpose of the *limes* was to control communication to and fro. The barbarians were permitted to cross the *limes* only when disarmed and under surveillance and upon payment of custom dues. The exchange of wares was limited to a few fixed points along the line.¹⁰ An exception to these regulations was allowed in favor of the Hermunduri, who dwelt to the north of the boundary of Rhetia.¹¹ In accordance with the purpose of the boundary occupation naturally fortresses were erected at points where highways traversed the boundary line.

Early in the reign of Trajan the boundary was extended along the course of the Main from the point of termination of the boundary line of Domitian to Wörth. From there a land boundary was carried across the Odenwald to a point on the Neckar near the mouth of the Jagst. The river Neckar formed the continuation of the new line to a point near Cannstadt where the land boundary commenced again

⁸Mommsen, *Römische Geschichte*, vol. 5, pages 111, 112 (note).

⁹Frontinus, *Strat.* I, 3, 10.

¹⁰Tac. *Hist.* IV, 64, *Germ.* 41.

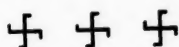
¹¹Tac. *Germ.* 41.

and was extended across the country as far as the northwest corner of the province of Rhætia. This extension effected the inclusion of the so-called tithe lands (*agri decumates*) within the territory of the Roman Empire. This region was already partially occupied by adventurers from Gaul, such as might be termed "squatters." Tacitus describes it as a tract of insecure possession.¹²

The arrangements on the new line were similar to those north of the Main except that the cohort castella were erected on the boundary itself and not in the interior. Under Trajan the *limes* boundary was probably continued along the northern frontier of Rhætia with the necessary forts as far as the Danube at Eining.

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THE TROGLODYTE DWELLINGS OF BAKHTCHI-SARAI

BAKHTCHI-SARAI, thirty-eight miles northeast from Sévastopol, is one of the most interesting centers from which to visit a characteristic class of archæological remains in the Crimea. This is a city, of about 15,000 inhabitants, which was given up for the exclusive use of the Tartars by Catherine II., who visited it in 1787. Here the traveler will become familiar with the minarets of Moslem mosques, from whose top the muezzin's call to prayer is given at the appropriate times throughout the day. As in all Moslem towns, booths line the narrow streets, each man plying his trade, so that all may see his work. The customer has only to halt, not turning in from the pavement, to lean upon the counter or shelf, which is flush with the street. Early in the day the city is a busy scene of traffic, but at sunset wooden shutters are let down, and one sees only deserted streets, with blank walls on either side. Everything is in striking contrast to the centers of archæological interest in the near vicinity.

It should be premised, however, that the archæological remains in the interior of the Crimea are in marked contrast to those which abound along the shore. The latter are almost all distinctly of Greek origin; the former are more varied in their character, and bear marks of different nationalities and of a longer period of history. Extensive Greek remains are found at Chersonese, on the peninsula a little farther out than Sévastopol, and, upon the eastern side of the Crimea, at Theodosia. More extensive, still, are the remains at Kertch, on the Cimmerian Bosphorus. These have been extensively excavated by the Russians, and from them a remarkable collection of objects of art has been made in the Museum of the Hermitage in St. Petersburg. A partial account of the Greek remains at Kertch was given in the

¹²*Germ.* 29.

RECORDS OF THE PAST for November, 1905. Near the mouth of the Don, as it enters the Sea of Azov, the extensive ruins of Tanis, founded by a colony from Miletus in 650 B. C., yet await exploration.

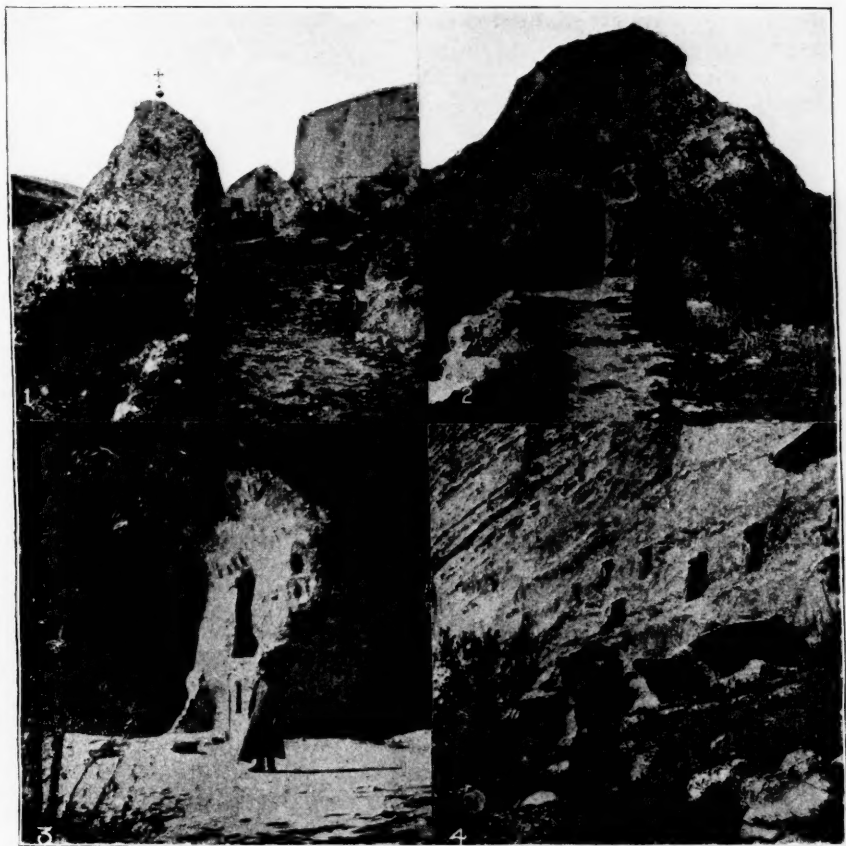
The southern shore of the Crimea is bordered by a picturesque mountain range, chiefly composed of Jurassic rocks, which rise to a height of about 5,000 ft. As is well known, this mountain chain is such a perfect protection from the cold winds of the north that the southern exposure, overlooking the Black Sea, has a climate of rare mildness and salubrity, making Yalta one of the most charming places of the world, and the favorite residence of the Czar and as many of the nobility of Russia as can find room for their palaces. Upon surmounting this range, one looks out upon the extensive plains which stretch northward without interruption to the Baltic Sea. The slopes of Cretaceous and Tertiary rock which lead down to this plain are deeply



STREET OF BAKHTCHI-SARAI—IN THE MORNING

channeled by a number of small streams, of which the Belbek, the Katcha and the Alma are prominent. While the climate of this northern slope is so dry and severe that the soil furnishes only a scanty amount of pasturage for flocks, the river valleys, protected by the precipitous faces of their eroded channels and supplied with abundant water from their mountain sources, are extremely productive, and have for ages offered peculiar attractions to the races which have roamed over the territory beyond the reach of the adventurous traders who from the earliest times have established their trading-posts and developed their peculiar civilization in every accessible harbor along the coast.

There is nothing new in the fact that a peculiar people are in possession of the interior of the Crimea. The "Crim Tartars" are the natural successors of the Scythian tribes that for ages occupied what



VIEWS AT BAKHTCHI-SARAI

I. BOULDER UTILIZED FOR A CHAPEL. 2. ENTRANCE TO THE CHAPEL IN THE BOULDER. 3. A CHAPEL IN THE CLIFF.

4. NEAR VIEW OF THE CRYPTS

was to the classic nations the unknown regions of the north. Yet these same valleys and the bordering mountain fastnesses have all along presented especial attractions and offered asylum to various classes of religious enthusiasts, who have found in them the seclusion and protection which were forbidden elsewhere.

Among the most interesting ruins are those of Mangoup-Kalé, upon the south side of the Belbek Valley, and about half-way between Bakhtchi-Saraï and Sévastopol. These are situated upon an eroded mountain summit, 1,000 ft. above the valley, which commands an extensive view of the Chersonese peninsula upon the one side, and of Eupatoria, the ancient Coronitis, to the north. The precipitous faces of the calcareous sandstone cliffs, which abound here, are honey-

combed with crypts excavated in the rocks, which have been used from the earliest times. Many of these are connected with each other by narrow and perilous paths, cut in the face of the rock. These are said to be "provided with reclining niches, watertanks, pits for holding supplies, and in some instances with fireplaces."

The acropolis, or citadel, is surrounded by a formidable wall, 12 ft. in thickness. This is bordered by a terrace upon the precipitous side, which contains a palatial façade, of fine architectural proportions, ornamented by designs in a style peculiar to the Armenians. What is left of this edifice is 41 ft. long by 19 ft. in depth.

Adjoining the acropolis there is, according to Telfer, "a crypt from which two flights of steps lead to a larger crypt chamber, measuring 21 ft. by 17 ft., and 8 ft. 4 in. from floor to ceiling, the roof being supported by a pillar of one piece with the rock. Seven doorways lead out of this lower chamber to 6 separate closets, each from 7 ft. to 8 ft. square, and it also communicates by another opening with a shelf in the rock outside, which overlooks the valley of Kodja-Salâ at a depth of about 1,000 ft. We here have a remarkable and unique suite of rock-cut dwellings, which, considering its disposition and accessories, may have been, as Dubois suggests, the residence of a king of the Tauri."

This conspicuous point is supposed by Dubois to be "the site of Chabum, one of the fortresses constructed by Scylurus, the Tauro-Scythian king." Towards the close of the IV century, A. D., after the departure of the Huns, the Goths occupied the stronghold, and left upon the remains the marks of the Christian ideas which had been introduced among them by captives made in their wars with the Romans. Over these Christians the Emperor Justinian extended his protection until the region was conquered by the Khazars, in the VIII century. Meanwhile the Khazars were converted to Judaism. Following the Khazars, the Comans occupied the region in 1050, these in turn being displaced by the Mongols in 1237. Then came the Genoese, and later the Turks. Nevertheless, the Goths were never wholly displaced, and it is related that 40 castles remained between Mangoup and the Chersonesus, "in each of which a separate idiom was spoken, many of the men in them being Goths, whose tongue was a dialect of the Teuton." Now these strongholds are entirely abandoned, but as late as 1800 a few of the members of the Karaite sect of the Jews remained in the stronghold.

Within a day's ride of Bakhtchi-Sarâi there are 3 centers of extreme interest, an account of which can best be given in the shape of a journal, made during a visit early in October, 1905. Obtaining a driver and a dragoman, we left the crowded streets of the city early in the day, and drove for about two hours southward across the elevated country partially dissected by the upper branches of the Katcha. The bare rocks offered but a scanty herbage to the few flocks of sheep which we met, watched over by lonely shepherds. But there was a



SOUTH SIDE OF THE PROMONTORY OF TCHOUFOUT-KALE, WITH THE
KARAITE SCHOOL IN FOREGROUND

constant stream of carts, loaded with luscious fruit, on its way to the railroad station to be taken to the northern capital of the empire. Upon approaching the valley of the stream, everything was changed. Such loads of apples as were being boxed ready for market, and such jolly, happy bands of peasant girls as were going from one orchard to another to help in the picking, made it difficult to believe that want had ever touched the country. A striking feature of the scenery between the cliffs, which are about a mile apart, is two gigantic columns of calcareous rock, mysteriously left in the progress of the general erosion of the valley. Our photograph, while showing well one of the columns, fails to show the precipitousness of the retreating face of the cliff behind it, since the camera had to be elevated in order to get the view at all.

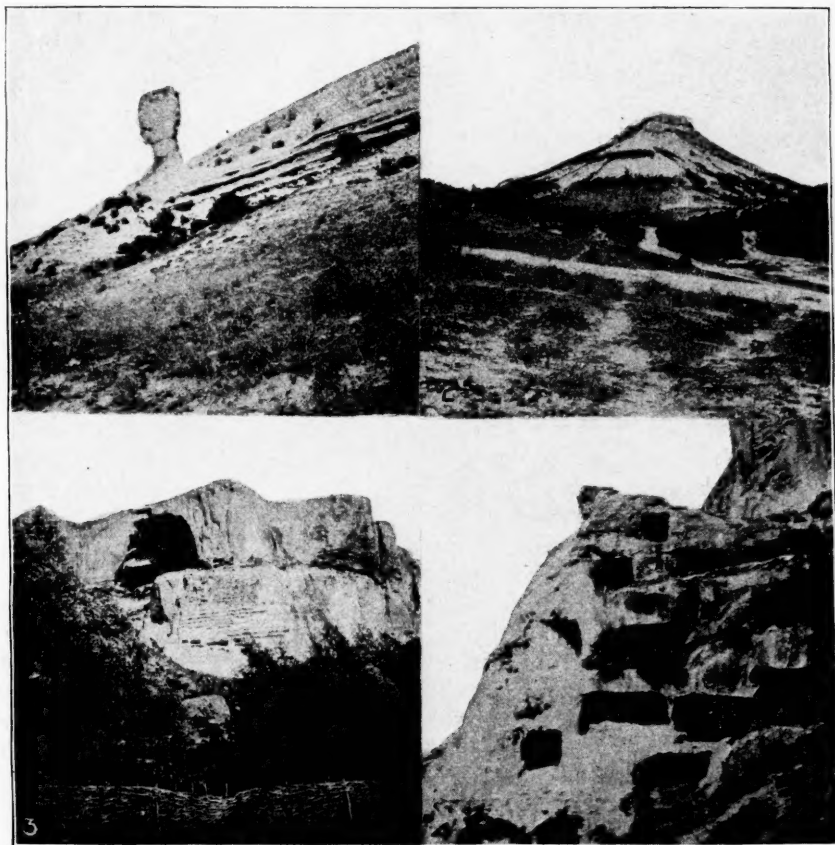
Two or three miles farther up the valley we reach the crypts of Katchikalén, which are excavated in the cliff of calcareous sandstone rising about 2,000 ft. above the bed of the stream upon the north side. At the base of the cliff is the modern church of St. Athanasius, around which are gathered a number of Greek monks, supporting themselves by cultivation of the fields, but whose spare time is occupied by keeping up the services of the church, and retiring to these crypts for meditation. With an abundance of straw to protect them from the hardness of the rocky floor, and with the magnificent outlook of natural scenery which opens before them through the doors of the crypts, religious meditation would seem here to be far from irksome, and to have everything to aid the worshiper in looking from Nature up to Nature's God. But, as a matter of fact, the monks look dull and uninteresting, as though little affected by the impressiveness of the scenery surrounding them.

Upon ascending the winding pathway, not to the summit, for that is impossible to reach from this side, but to the middle of the precipice, where the crypts are thickest, both the bewilderment and the interest became extreme. The path leads by many immense boulders that have fallen down from the face of the cliff in times long gone by, some of which are now utilized for chapels. One is surmounted by a cross, while the interior has been excavated into a commodious room, and furnished with all the paraphernalia of a church service. How many such there were we could not learn. Two of the most striking ones appear in our illustrations.

In saying that the face of the cliff is honeycombed, we are not speaking figuratively, but literally, as our views will show. In many places they rise story above story, while it was difficult to see how access to them could have been obtained. Many of the crypts are compound, several of them being connected by secret passages; some, also, were provided with niches and bins, and with winepresses and reservoirs. The whole place was rendered impregnable by nature, except upon the northwest side, where a strong artificial wall had been built.

Leaving the valley of the Katcha at Shoury, and going northward up the rocky valley of the Syrbey, and passing two or three highly cultivated estates, one comes in the course of an hour to Tepé-Kermen ("castle on the hill"), which contains upon its summit the most perfect and varied of all the crypts in the peninsula. Here, on the south and west side of the precipitous summit (1,000 ft. above the valley), crypts appear in successive tiers, with steps along the exterior surface of the rock communicating from one to the other. "All have recesses, niches, reclining places, and bins, economy of space having evidently been studied in their distribution." Among the excavations is a chapel containing a number of illegible inscriptions in early Greek characters. In front of the chapel are pits in the rock filled with human bones. None of these crypts are now utilized, while in number they are to be counted by the hundred.

About an hour farther over the highlands to the north, one reaches what is in many respects one of the most interesting places of all—the "Valley of Jehoshaphat"—into which projects a promontory, with precipitous faces on either side, several hundred feet in height. The surface is covered by massive ancient ruins, while many passages lead down to extensive excavations, with the windows opening out upon the face of the precipice below. The neck of the promontory is crossed by a solid wall of defense, which is penetrated by a single gateway. This place is now known as Tchoufout-Kalé, or "Jewish Fortress," and is occupied by the sect of the Jews known as the Karaites, who are said to have been here since the year 460 B. C. The Karaites maintain that many Israelites went with the armies of Cyrus, Cambyses, and Darius in their expeditions into Scythia, and that to these were given the Tauric peninsula. The Karaites differ from the Talmudists in rejecting tradition and adhering strictly to the letter of the Bible. They



VIEWS AROUND BAKHTCHI-SARAI

1. A REMNANT OF EROSION. 2. TEPE-KERMEN. 3. GENERAL VIEW OF THE CLIFF. 4. NEAR VIEW OF THE CRYPTS

number about 6,000 in the Crimea, and maintain a printing establishment at Eupatoria. They have a synagogue in Jerusalem, one of whose members visits the Crimea annually to collect contributions. The reputation of the Karaites for morality is unexceptionable, and their honesty and probity are proverbial. They have been much favored by the Russian government, and point with great pride to the splendid portraits of Catherine and of the Czar and Czarina, which have been presented to their chapel at Tchoufout-Kalé.

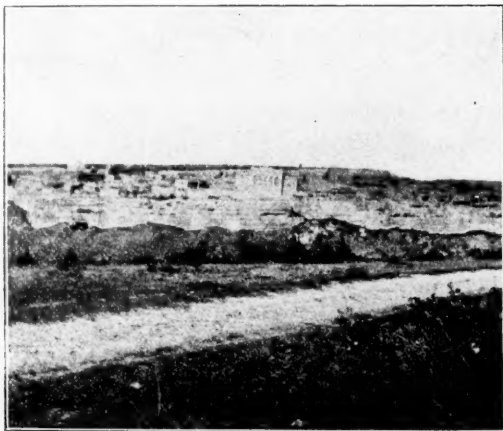
In the early part of the last century more than 1,000 of the Karaites were living on this rocky promontory, but now only three families are left, one of which is that of the very highly-educated, courteous, and fine-appearing rabbi, who is at the head of a theological school maintained in the place. The impressive building that appears in our

illustration is occupied by this school, which numbers 20 pupils. In the room adjoining, occupied by the family, there is a most exquisite ceiling of carved wood, several hundred years old. From our illustrations a faint idea can be obtained of the situation of the promontory in the midst of whose ruins this singular temple of learning now stands. The outlook takes in the whole coast from Eupatoria to Sévastopol, with the sea in the background. Everything around them reminds them of the past and of the tenacity of their religious ideas. Ruins of unknown age cover the surface of the peninsula. Crypts whose history stretches back to unknown periods of time are reached by winding staircases cut in the rock beneath their feet, where meditation can be aided by every material adjunct of which it is possible to conceive. Recently a collection of manuscripts, many of them dating from before the IX century, which had been kept at this school, were purchased by the Russian government for the sum of \$50,000. Near by is a cemetery with inscriptions dating from the I century of our era. One of them reads, "The Rabbi Moses Levi, died in the year 726 after our exile," which would correspond to 30 A. D. Another reads, "Zadok the Levite, son of Moses, died 4000 years after the creation, 785 after our exile," which corresponds to 89 A. D.

After bidding farewell to the courteous rabbi and his interesting wife, and taking a last look through the gorge towards Bakhtchi-Sarai, which about half-way down is occupied by the picturesque convent of Ouspensky, we drove rapidly over the rough road to reach the city just too late to hear the muezzin's cry for the closing prayer of the day, and to wend our way through Moslem streets that were well nigh as deserted as were the ruins of Tchoufout-Kalé.

GEORGE FREDERICK WRIGHT.

Oberlin, Ohio.



FRONT VIEW OF THE KARAITE SCHOOL LOOKING ACROSS THE GORGE



PILOT BLUFF NEAR M'EVERS MOUNDS

THE McEVERS MOUNDS, PIKE CO., ILLINOIS

ON THE west bank of the Illinois River, in Pike County, Illinois, stands the little hamlet of Montezuma, reached by boat down the river, or by way of the Alton R. R. to Pearl, and thence 8 miles by the daily stage. Along the river is a strip of rich bottom land about 600 ft. wide, and on this the village is located. Running east and west at right angles to this alluvial bottom are ridges from 30 to 50 ft. high, which break down abruptly at the eastern end in laminated limestone cliffs that face the river. Between the ridges flow small rivulets which seep out from rocks along the numerous gullies.

On these ridges, close to the town, on land belonging to N. D. McEvers, are 15 mounds, 8 of which have, this last winter, been more or less thoroughly examined. We give their size and the results of the exploration in the order in which the excavations took place:

- No. 1—24 ft. high; 130 ft. in diameter.
- No. 2—9 ft. high; 100 ft. in diameter.

- No. 3— 6 ft. high; 105 ft. in diameter.
No. 4— $8\frac{1}{2}$ ft. high; 100 ft. in diameter.
No. 5— 12 ft. high; 125 ft. in diameter.
No. 6— 3 ft. high; 20 ft. in diameter.
No. 7— 5 ft. high; 25 ft. in diameter.
No. 8— 4 ft. high; indefinite.

No. 1 is the largest and most conspicuously located of all the mounds, and is situated at the extreme eastern end of a ridge just where it drops down into a perpendicular, shaly cliff. It was covered with a thick sod, and apple trees were growing upon it. Mr. McEvers had long intended to examine it, although an uncle assured him that he had opened it 50 years ago and there was nothing in it. A slight break in the symmetry of the northeastern side near the top, marked the place of this excavation. Nevertheless, in the winter of 1905, Mr. McEvers began to tunnel it from the west.

As he proceeded, he found mussel shells, ashes, charcoal, and bones. The earth was soft and there was danger of its caving in; and when, at a distance of 33 ft. inward, a still softer soil was encountered, the tunnel was abandoned and a trench, intended to meet the tunnel, was begun from the eastern side. By the time this had been extended 50 ft. inward, Drs. Bushnell, Wulffing, and Fowke, of the Missouri Historical Society, had heard of it and were on the spot. With the consent of the owner, they hired 4 men with scrapers and started a large trench through the mound from east to west, several feet south of the former trench.

As the work progressed, ashes, charcoal, animal bones, and flint chippings were unearthed, beside a great number of mussel shells, some of them perforated so that by the attachment of handles they might be used as hoes or scrapers. Lower down were found a flint spear point, flakes of mica, three flakes resembling moss agate, but with no moss enclosed, and many small fragments of pottery, mostly of coarse material and crude "finger-nail" decorations, or none, but some with fine polish and beautifully curved rims neatly decorated with crisscross lines. At a depth of 22 ft. a layer of decayed wood and bark several inches in thickness was encountered; and beneath this was a vault 15 ft. from north to south, by 7 east and west, and 20 in. in height, built of logs and chinked with a green clay which, when moist, works up in the hand like putty.

This log pen had been built on the original surface or sod line, and had been floored with bark. Over the south half of this floor 1,259 leaf-shaped blades of chert had been laid so as to overlap like shingles. The blades are $3\frac{1}{2}$ to 7 in. long, and from 3 to $4\frac{1}{2}$ in. in breadth, carefully wrought, and mostly of dull white, although some are red, some black and red, and others a beautiful mixture of pink and white.

On this flooring of leaf-blades, at the southern end of the vault, a body nearly 6 ft. long had been laid, face down, head southwest. A foot north of the head a large lower jaw rested on four pink blades.

Human bones indicating promiscuous skeleton burials covered almost the entire bottom of the cist, and scattered about among them were 4 perfect, 19 broken, and several fragmentary needles or perforators made of elk bone. Just north of the center was a disjointed and bundled skeleton, the large leg bones being placed on the bottom and the skull, which was painted or stained red, being placed in vertical position above the west end of the heap. Near the northern end of the cist was an extended skeleton, head west; 2 ft. north was another extended skeleton with head at the east, and between the head of the latter and the feet of the former was a large shell a foot long, which had perhaps been used as a drinking cup, for the columella and inner whorls had been removed. Near the first bunched skeleton were 42 pearl beads, one weighing 52 grains, but the others small, though of brilliant luster. And with them were 72 cylindrical and barrel-shaped beads $\frac{1}{2}$ to $1\frac{1}{2}$ in. long, made from salt-water shells, all well polished and drilled lengthwise. Among them was an occasional long, pointed tooth of an animal drilled through the root end. One or two other traces of bunched bones were found. Some flat, disk-shaped shell beads, perforated at the center, fragments of two "pulley rings" grooved around the outer circumference like the wheel of a well-sweep, and a finely wrought shell spoon, completed the contents of the vault.

The trench was enlarged at the middle so as to extend beyond the pen, and the logs were found to be crossed at the corners and to extend several feet beyond the cist. The reddish-brown, decayed wood crumbled at every touch. Several feet above and to the southwest of the vault, just where the enlargement of the trench begins, are traces of a log that seems to have sagged from an inclined position, like a weakened roof timber; and diagonally opposite on the northeast projection of the trench the red dust of decayed wood is also to be seen. If these are remains of roofing logs, the roof must have projected far beyond the vault, and have been put in the mound after a covering of earth had been heaped above the flat, wood or bark cover which rested immediately upon the pen.

The whole enormous mound seems to have been constructed of baskets full of sand, clay, ashes, and charcoal; and the separate loads can be distinctly traced. On the north wall of the trench, a thin vein of green clay like that with which the pen was chinked, indicates that a layer of this was put over the mound at one stage of the building. Small quantities of a soft, bright-red material resembling paint are found in the earth, and a crumbling ball of the same was picked up at the spring on the south side of the ridge. From the wall of the trench 5 ft. above the bottom, the writer took a very small pink leaf-blade. On the upper surface of it, close to the edge, was what appeared to be a short, branched root, but the supposed root proves to be as hard as iron, and though apparently extraneous, can be neither broken off nor washed away.

In mounds where there are important central burials, as in this, there are usually other inhumations around the circumference or in upper strata, and it is possible that much of interest still remains hidden in this tumulus; but to remove the entire mound would be a stupendous labor, and tunneling near the original surface is unsafe, for the moist loam readily falls—in *slices*—when cut with a knife.

No. 2, across the gully to the north was excavated with scrapers, the trench being cut from north to south. On the sod line at the center were found the decayed bones of 3 or 4 persons. No implements or pottery had been buried with them. Two other mounds in this row were left untouched, for the clay of which these are composed is very hard to work, being sticky when wet and exceedingly tough when dry.

Nos. 3 and 4.—Some distance west on this second ridge are 4 large mounds contiguous to each other and in a line north and south. Nos. 3 and 4, as well as No. 2, each had a slight depression near the top, and it is possible that the same uncle who thought he had explored No. 1 may have dug into these. They were of the same tough clay which at the surface almost resisted the blows of the picks. But despite the extreme difficulty of the task, a large trench was made through each. Nothing of consequence was found in No. 3.

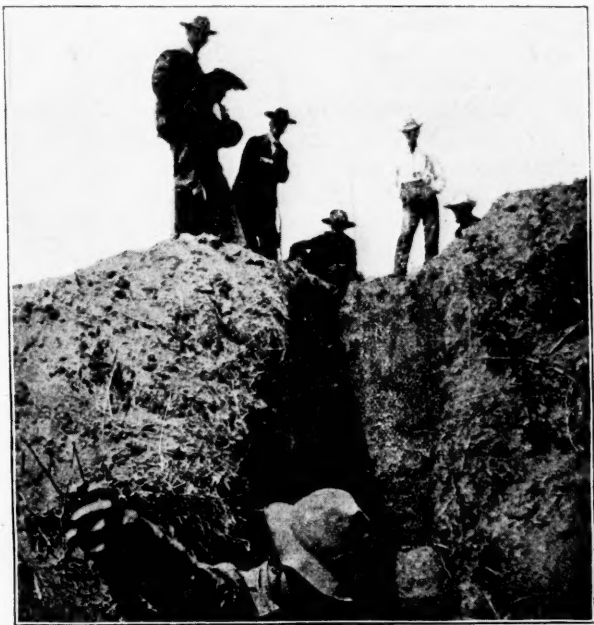
In No. 4, the patella and tooth of a horse were uncovered; the latter at a depth of 7 ft., and evidently contemporaneous with the mound, proving that this earthwork is not more than 400 years old. At the bottom of the mound an interesting feature was discovered: the original surface had been leveled up by dumping earth in the depressions, and then a wall or ridge of red clay had been built, enclosing an area 12 ft. east and west by 16 north and south. Within this enclosure were 3 bunched skeleton burials.

No. 5.—The most southern one of the 4 was constructed of dumped earth, ashes, rock, and wood. A trench was run from east to west. Nine feet under the apex, the scrapers struck the northeast corner of a log cist 14 ft. east and west; 12, north and south; and 2½ high, built directly on the sod line. Near the south side of this vault was the top of a skull, crown upward, and stained red. Four feet to the eastward were portions of the skeleton. One whole, and several broken bone needles were found in the cist. Outside the vault, 30 ft. west of the center and above the natural surface, was an extended skeleton, head south. Nothing else was found in the west half of the trench; but in the east half were two adult skeletons, extended, heads east; 5 fragmentary skeletons; one adult and one child's skull. It will be noticed that this mound, like the first in which a vault was enclosed, is of dumped earth, and that here within the narrow space of the seven-foot trench had occurred 10 depositions of human remains outside the cist. Probably 3 times that number would be found if the whole mound were explored; for the tumulus is 125 ft. in diameter.

No. 6.—Leaving the larger mounds and returning, with shovels, to the first ridge on which No. 1 stands, the explorers investigated a

very small mound, the middle one of 3 standing in a line east and west. This, like all the preceding, is in an orchard, and plowing had reduced it to a height of 3 ft. There was scarcely rise enough to indicate that it was an artificial elevation. Nothing was found at the center, but at the northeast were crumbling bones of two adults and of a child which, at death, was cutting its second teeth.

No. 7.—A new feature was discovered in the western one of these 3 small mounds. In all the others, the depositions had been on or above the surface. In this, a grave had been dug at the center, 16 in. into the soil, and in it had been placed a body, extended, head west. At the outer edge on the south, another grave had been sunk a foot



TRENCH THROUGH NO. 1—MCEVERS MOUNDS

into the earth, to contain a body extended, head east. This grave was covered with limestone slabs and on the slabs were several mussel shells. West of this grave, on the natural surface, was a skeleton, extended, head northeast or toward the center. A foot above this were the bones of a skeleton piled in a small heap. At the sod line, just above the central grave, was an extended skeleton, head east.

When the tumulus was 2 feet high, two bodies were placed on it east of the center, heads west, as would be necessary in keeping the head uppermost on this side of the mound. One of these skulls had teeth much worn, indicating age; the other had only the first set of teeth. The heads were in contact, and this was probably a burial of

parent and child. Three other bodies were placed on the east. On the west side of the mound was an extended skeleton, head southwest, with the small bones of the feet and hands well preserved, but with the face and jaw bones crumbled to dust. Parallel with this were the soft fragments of another skeleton. Farther east was a broken skull; and under this the nearly perfect skeleton of an infant or a very young child. Part of the skull of another infant, which had been just cutting its teeth, lay near this. East of the center, close to the surface, was an unusually thick skull, and north of the center a very large femur and tibia lying at right angles and a foot apart. Beneath these were the fragments of a child's skull and 3 ft. away some teeth of a child. The slight elevation of this mound, the successive burials, and the position of scattered bones evidently belonging together, as in the two instances last mentioned, render it probable that the sundering of these skeletons was due to the plowshare or to the depredations of animals.

In this one mound, 5 ft. high and scarcely 25 in diameter, the remains of 18 or 19 persons had been inhumed, in pits, on the surface, inclined on the partly constructed pile; heads east, west, northeast, and southwest, showing that no uniform custom prevailed. No implements or pottery had been buried with these bodies. Only the southern portion of the mound, from a line drawn 3 ft. north of the center, had been excavated. An exploring trench was dug around the northern circumference, but as no implements were unearthed and as bones were now at a discount, being corded up under a tree near by, the inner northern part of the mound was left intact and the explorers betook themselves to a pasture lot close to the southwest corner of Montezuma, and began work on No. 8.

No. 8.—This was another mound whose boundaries had been obliterated and whose height had been so reduced by cultivation and by the trampling hoofs of cattle that Mr. McEvers had not recognized it as an Indian burial place. The first stroke of the spade revealed an earthen pot fairly projecting above the sod. And on the southern slope the faces of 6 skeletons almost protruded from the earth. The pot was the only entire one found in any of the mounds, but it was so badly decayed that it fell to pieces on removal from the ground. Directly below the pot was a round fire pit 16 in. in diameter, and 18 in. deep, filled with ashes, charcoal, and earth. North of the pot, close to the surface was the top of a skull. Three feet east of the center was another, the face bones wanting. On the natural surface, lying in a curved line as if to mark the southern circumference of the mound, were two adult skeletons, and near them that of a child, covered with limestone slabs. Here also an exploring ditch was run around the northern circumference, and the remainder of the mound left undisturbed.

Many of the skeletons were too much decayed to be preserved; but all the skulls were collected, and these, together with most of the blades, beads, and needles were given to the Missouri Historical Soci-

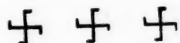
ety.¹ There are still 4 large and 3 small mounds unexplored, and on the east bank of the Illinois are several more.

Log cists like those in Nos. 1 and 5 are not common in Illinois, though they are found in other sections of the United States. In Joe Daviess Co. a vault was made of stone on three sides and of logs on the fourth side; in Whiteside Co. east of Sterling the writer knows of a mound in which a large stone slab was laid on four stone corner-posts, and under this canopy several bodies were placed in sitting posture; but the usual cist all along the Illinois side of the Mississippi River is of stone slabs set on edge, with a floor and covering of slabs.

The Hurons east of the Great Lakes, used to bury their dead separately, and every 12 years they exhumed the bones and the partially decomposed bodies, made a "Feast of the Dead;" and reburied them all in one pit. The Dakotas exposed their dead on aerial platforms until the flesh was removed, when they buried the bones. Some such custom probably accounts for the bundled and disconnected remains found in the McEvers mounds.

CLARA KERN BAYLISS.

Springfield, Ill.



BOOK REVIEWS

THE NORTHMEN, COLUMBUS AND CABOT²

The American Historical Association in 1902 adopted a plan to present a series of volumes of original narratives of early American history to cover the period from the earliest discoveries to 1700. The general editor chosen was Dr. J. Franklin Jameson of the Department of Historical Research in the Carnegie Institution of Washington. The object of the series is thus set forth in the general preface to the first volume to appear:

The series is to consist of such volumes as will illustrate the early history of all the chief parts of the country, with an additional volume of general index. The plan contemplates, not a body of extracts, but in general the publication or republication of whole works or distinct parts of works. In the case of narratives originally issued in some other language than English, the best available translations will be used, or fresh versions made. In a few instances, important narratives hitherto unprinted will be inserted. The English texts will be taken from the earliest editions, or those having the highest historical value, and will be reproduced with literal exactness. The maps will be such as will give real help toward understanding the events narrated in the volume. The special editors

¹To which the writer is indebted for many of these specifications.

²*Original Narratives of Early American History.—The Northmen Columbus and Cabot, 985-1503.*—The Voyage of the Northmen, Edited by Julius E. Olson.—The Voyage of Columbus and of John Cabot.—Edited by Edward Gaylord Bourne, Ph.D.—With maps and a facsimile reproduction.—Charles Scribner's Sons, New York—1906.

of the individual works will supply introductions, setting forth briefly the author's career and opportunities, when known, the status of the work in the literature of American history, and its value as a source, and indicating previous editions; and they will furnish such annotations, scholarly but simple, as will enable the intelligent reader to understand and to estimate rightly the statements of the text. The effort has been made to secure for each text the most competent editor.

The great value of such a series is apparent to all, for no abstracts of narratives or modern histories can have the atmosphere or personal character of the originals.

Of the early discoverers whose narratives and journals are gathered together in the first volume under the title of *The Northmen, Columbus and Cabot*, the Northmen are the most interesting and attractive because of the mystery which surrounds the actual places they visited, the character of the men and the fact that the original narratives of their expeditions have not been as widely published as those of the later voyagers. These narratives include the *Saga of Eric the Red*, *The Vinland History of the Flat Island Book*, and excerpts from Adam of Bremen's *Descriptio Insularum Aquilonis*, *The Icelandic Annals* and Papal Letters concerning the Bishopric of Gardar in Greenland during the XV century. The romances in these stories surpass those of any novel in interest, and what could be more fascinating than the fairy tales, such as that of the discovery of a Uniped, which were inserted by one narrator, who felt that he must have something supernatural to report in order to prove that he had visited a new, strange, foreign country.

A comparison of the different narratives makes it possible for the reader to separate in part the true from the imaginative, and to draw his own conclusions as to the location of the Vinland described by the Northmen, a problem which will doubtless never be solved unless some authentic traces of their short visit to our coast lies hidden awaiting future discovery.

The introduction and numerous footnotes by Prof. Julius E. Olson add greatly to this most valuable collection of narratives.

We can speak but briefly of the voyage of Columbus and John Cabot, which are edited by Dr. Edward G. Bourne. This part of the volume is composed of a complete Journal of the First Voyage, letters from Columbus to Luis de Santangel, and to Ferdinand and Isabella, a letter of Dr. Chansa, on the second voyage of Columbus, a narrative of the third voyage of Columbus, a letter of Columbus to the Nurse of Prince John, and a letter of Columbus on the fourth voyage, and a few letters of the voyage of John Cabot. We are fortunate in having such full accounts of the discoveries made by Columbus, and equally unfortunate in having so little concerning the region visited by John Cabot.

Several maps and facsimile reproductions add to the value of the work, which is a boon to the general reading public, as well as to students and teachers of history.

FREDERICK BENNETT WRIGHT.

THE BOOK AM-TUAT*

The inhabitants of Egypt during the Dynastic Period of their history possessed, in common with other peoples of similar antiquity, very definite ideas about the abode of departed spirits, and few, if any ancient nations have caused their beliefs about the situation, the form, the divisions and the inhabitants of their Heaven and Hell to be described so fully in writing.

Doctor E. A. Wallis Budge, Keeper of the Egyptian and Assyrian Antiquities in the British Museum, contributes a series of three volumes which treat of the Egyptian Heaven and Hell. The first of these contains the complete hieroglyphic text of the *Book Am-Tuat*, with translations and reproductions of all the illustrations; also chapters dealing with the origin and contents of Books of the Other World. The second volume contains the complete hieroglyphic text of the Summary, or short form of the *Book Am-Tuat*, and the complete hieroglyphic text of the *Book of Gates*, in like manner as to translations and reproductions of the illustrations; while the third volume is a resume and discussion of the contents of the others. Chapters are devoted to "The earliest Egyptian conception of the Other World," and to "The reunion of the Beatified and their recognition of each other in the Other World, and the gathering together of a man's ancestors to him in the Neter-Kher."

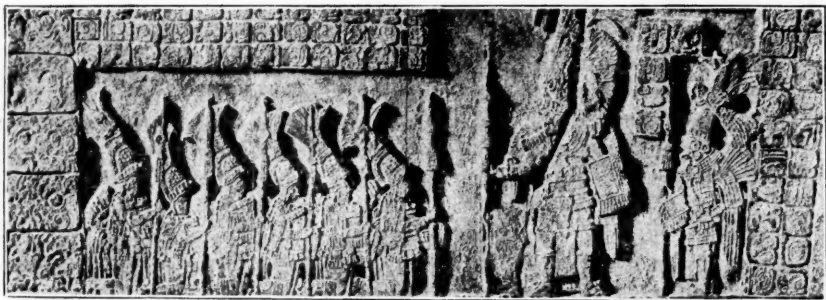
For a period of 2,000 years in the history of Egypt, the Books of the Other World consisted of text only, but about B. C. 2500 some pictorial representations appeared, and before the close of the XIX Dynasty, all the principal books relating to the *Tuat* were profusely illustrated. In the copies of them which were painted on the walls of the royal tomb, each division of the *Tuat* was clearly drawn and described, and each gate, with all its guardians, were carefully depicted. Both the living and the dead could learn from them, not only the names, but also the forms of every god, spirit, soul, shade, demon and monster with which he was likely to meet on the way.

The Egyptians had no belief in purgatory. In all the Books of the Other World we find pits of fire, abysses of darkness, murderous knives, streams of boiling water, foul stenches, fiery serpents, hideous animal-headed monsters and creatures, and cruel, death-dealing beings of various shapes, similar to those with which we are familiar in early Christian and mediæval literature, and it is tolerably certain that modern nations are indebted to Egypt for many of their conceptions of hell.

The oldest copies of the *Book Am-Tuat* are found in the tombs of Thothemes III, Amen-hetep II and Amen-hetep III, at Thebes. The most complete and best illustrated copy is that which is found on the walls of the tomb of Seti I at Thebes.

THOMAS FORSYTHE NELSON.

**The Egyptian Heaven and Hell*, by E. A. Wallis Budge, 3 vols, Chicago: The Open Court Publishing Co.



WARRIORS ON LINTEL 2, PIEDRAS NEGRAS, MEXICO

EDITORIAL NOTES

COMMERCIALISM VS. SCIENCE: A spirit of commercialism pervades the atmosphere surrounding some of the recently reported discoveries in the Mississippi Valley, which, although the discoveries may be genuine, can not fail to recall the Cardiff Giant and other commercial archaeological successes.

AGE OF THE IVORY AND WOODEN TABLETS DISCOVERED AT NEGADAH AND ABYDOS.—In speaking before the Society of Biblical Archaeology, Mr. F. Legge claimed that the small ivory and wooden tablets recently discovered at Negadah and Abydos were the earliest written records in existence. He believes they record different ceremonies in the funerary chapels in which they were found.

ARCHAEOLOGICAL REPORT OF ETHNOGRAPHICAL MUSEUM AT TORONTO.—Mr. David Boyle's Archaeological report to the Minister of Education of Ontario for 1905 records the addition of 132 objects to the Ethnographical Museum at Toronto, which now has 27,155 specimens. These additions include "several fine flint implements; some highly-decorated and well-formed clay pipes; stone pipes; a well-shaped clay pot; a large curved copper tool; a bone implement in which a hole has been drilled, called by some an arrow straightener; a naturally weathered stone, 9 in. by 4½ in., which has for many years been looked upon as an Indian tool; and two buffalo-hide pictographs." To his report is appended a collection of papers on native tribes of Canada, drawn up for the International Congress of Americanists held at Quebec in September.

HOW THE AZTECS FOUGHT.—An interesting article under this title by Manual Gamie of the Mexican National Museum appeared in the November issue of *Modern Mexico*. The warlike spirit of the Aztecs was one great cause of their prominence in Mexico, and this spirit in turn was fostered by the worship of the war-god Huitxilo-pochtli. A boy's military education might be said to begin at the age

of 4 days, when a bow, arrows, and buckler of appropriate size were placed in his hands, as symbols of his future career as a soldier. At 18 years he was sent to school, the "calmecac" if of the upper class, the "telpuchcali" if not. His head was shaved except a single lock of hair in the back. This lock was cut only when he captured his first prisoner in war. The training included service in the temple and tilling the fields of the school as well as the use of arms. The pupil of the "calmecac" after capturing 4 or 5 prisoners, became a Knight of the Eagle or a Knight of the Tiger. A Knight of the Eagle wore a helmet representing the head of an eagle whose open jaws framed the face of the warrior. A Knight of the Tiger wore the skin and head of a tiger.

The principal motive for war was to supply victims for Huitzilopochtli. On one occasion a "sacred war" is recorded between perfectly friendly tribes because there had been peace so long that there were no victims for the god.

When war was declared, messengers were sent to demand tribute from the tribe selected to furnish prisoners. If tribute was denied, the messengers retired to return a few days later. If the king still refused to comply with their demands, they stained his face with resin and placed on his shoulder a symbolic adornment of feathers. Later still 3 ambassadors visited the court for the last time. On their final return to Mexico, the call to arms was made. The weapons used included bows and arrows, slings, darts, "atlatl" (a species of cross-bow), heavy macanas, wooden clubs with two rows of flint teeth and maces. Each of 20 chiefs carried also a lance with copper points, a breastplate, the standard of his division, and a tail plume of feathers. The soldiers stained their bodies to match the plumes of their respective chiefs, and their faces red to frighten the enemy. The rear guard was the "quachic," each one of which was said to be able to kill 100. They used no weapons, but trusted to their powerful fists and titanic embraces.

AZTEC LEGENDS.—The Aztecs employed a system of hieroglyphs, painted always in bright colors on strips of cotton cloth, prepared skins or on maguey paper. These were rolled or folded fanlike into books called "amatl," often with thin wooden covers. The Tecamoxtli might be called their Bible. The scraps of it left after the Spanish conquest give the story of the creation. Among the interesting legends is that of the birth of the sun and moon. Man had already been created, and was living with light from Venus only. The inhabitants of the earth were dumb and prayed silently for the sun. The gods met at Teotihuacan, where to-day are monumental pyramids of pre-Toltec origin, to consider the petition. The goddess of water begged the god of air to create light. He acquiesced and disappeared. The temple top blazed with fire. The god of air, Quetzalcoath, decreed that any priest who should leap into the flames would become the sun.

Two offered, one of royal lineage and one of humble. The royal priest delayed too long—the other was before him. As soon as the ashes of the priest were buried, the first dawn appeared. The Aztecs worshiped and all rejoiced—all but one. The royal priest was envious. At last he summoned courage to cast himself into the fire. As this new luminary appeared in the sky, Quetzalcoath, understanding the priest's motive, sent a rabbit to trample out its light. Slowly its light paled, and it became fixed in a distant part of the heavens, shedding no heat and only reflected light.

"The 4 immense monoliths that adorned the 4 angles of the upper platform of the great teocalli, 150 ft. in air, and which served as gnomonic dial hands, signified for the people the 4 places of the dead, and the priesthood held them as the pathway of Tonatiuh, the Sun, and his bride, Ocxomoco, the earth. * * *. Though the Aztecs had no telescopes or instruments for observation, they fixed the relative position of the sun and stars. They recognized the constellations. For instance, the Little Bear they pictured in the shape of the letter S. The Great Bear, which was known as the tiger, Texcatlipoca, was distinguished from the Scorpion. * * *. The movements of Venus were well understood. They styled her Citlapul (morning star) or Hueitlalin (evening star) according to her moods and movements." [Condensed from Edward C. Butler in *Modern Mexico*.]

PREHISTORIC BURYING-GROUND, HARLYN BAY, CORNWALL, ENGLAND.—In 1900, during excavations for a dwelling house, the workmen came upon a slate cist about 15 ft. below the surface. The owner immediately communicated with scientific men, who subsequently examined the site, which proved to be a very ancient burying ground. The Royal Society of Cornwall took up the matter, and as many as 100 graves were opened, constituting the richest find in number of stone cists, skeletons, and their accompaniments that has ever been made in one place in the British Isles. Last spring many more implements were found, and within a few weeks another cist has been discovered. Most of the relics found under the direction of the Royal Society of Cornwall were removed to the Truro Museum, but others uncovered since are preserved in a museum on the ground. Some of the slate graves have been covered with glass cases, so that visitors may see the graves and the contents just as they were found. In the museum are 20 cases of relics such as spindles, whorls, rings, bracelets, beads, brooches, and implements of various materials. No coins were found, a fact which helps anthropologists in estimating the age. They consider that the site belongs to the neolithic or bronze age, and that the skeletons are as much as 2500 years old. The skeletons are in the sitting posture, with the knees almost up to the head and the hands crossed. The graves extend in straight lines north and south, one head to another. The rows of cists are about 3 ft. apart, and sometimes rows are on top of one another. Often more than one body was interred in a grave. [Condensed from *Scientific American*.]

